

IN THE CLAIMS

Please further amend the claims as shown below in the complete listing of claims.

1-7. (Canceled)

8. (Currently Amended) A film deposition method that alternately performs a step of supplying a Cu-containing source material onto a substrate and a step of supplying a reductive gas to the substrate after stopping supplying the Cu-containing source material, wherein said method has:

a first film deposition period₁ in an early deposition stage₁ in which the two steps are performed alternately two or more times, and in which each ~~of the steps~~ step of supplying the reductive gas is performed for a first period of time T1; and

a second film deposition period₂ following the first film deposition period₁ in which the two steps are performed alternately two or more times, and in which each ~~of the steps~~ step of supplying the reductive gas is performed for a second period of time T2 shorter than the period of time T1.

9. (Currently Amended) A film deposition method comprising the steps of:

placing a substrate in a process container; and repeating the following steps (a) to (d):

(a) supplying a Cu-containing source material onto the substrate;

(b) removing residual gases in the process container therefrom after stopping supplying the Cu-containing source material;

(c) supplying a reductive gas to the substrate; and

(d) removing residual gases in the process container therefrom after stopping supplying the reductive gas,

wherein said method has:

a first film deposition period₁ in an early deposition stage₁ in which the steps (a) to (d) are performed alternately two or more times, and in which each ~~of the steps~~ step of supplying the reductive gas is performed for a first period of time T1; and

a second film deposition period₂ following the first film deposition period₁ in which the steps (a) to (d) are performed alternately two or more times, and in which each ~~of the steps~~ step of supplying the reductive gas is performed for a second period of time T2 shorter than the period of time T1.

10. (Original) The film deposition method according to claim 9, wherein the steps (b) and (d) are performed by replacing atmosphere in the process container with an inert gas, or by evacuating the processing container.

11. (Previously Presented) The film deposition method according to claim 8, wherein the first film deposition period continues until Cu deposited on the substrate becomes a continuous film, and the second film deposition period continues until a Cu film with a desired thickness is formed on the substrate.

12. (Previously Presented) The film deposition method according to claim 8, wherein the first period of time T1 is in a range of 3 to 20 seconds and the second period of time T2 is in a range of 1 to 5 seconds.

13. (Currently Amended) The film deposition method according to claim 8, wherein the reductive gas is converted into radicals by using plasma ~~when the reactive gas is supplied to the substrate.~~

14. (Previously Presented) The film deposition method according to claim 8, wherein the reductive gas is H₂ gas.

15-20. (Canceled)

21. (Previously Presented) The film deposition method according to claim 9, wherein the first film deposition period continues until Cu deposited on the substrate becomes a continuous film, and the second film deposition period continues until a Cu film with a desired thickness is formed on the substrate.

22. (Previously Presented) The film deposition method according to claim 9, wherein the first period of time T1 is in a range of 3 to 20 seconds and the second period of time T2 is in a range of 1 to 5 seconds.

23. (Currently Amended) The film deposition method according to claim 9, wherein the reductive gas is converted into radicals by using plasma ~~when the reactive gas is supplied to the substrate.~~

24. (Previously Presented) The film deposition method according to claim 9, wherein the reductive gas is H₂ gas.